

~~CLEARINGHOUSE~~

~~10-10~~

VOL 1, NUMBER 1, SPRING 1977



JOURNAL for MEDICAID MANAGEMENT

HCFA Information
Resource Center

MDG

8.16

PUBS
RA
412
.4
J75
vol.1, no.1
(1977:Spring)

RA
412.4
.J75
vol. 1, no. 1
(1977: Spring)

CLEARINGHOUSE

JOURNAL

for

MEDICAID MANAGEMENT

Department of Health, Education, and Welfare
Health Care Financing Administration
Medical Services Administration

JOURNAL

T A B L E O F C O N T E N T S

SPRING 1977

Volume 1, Number 1

Training Institute	1	<u>Institute</u> for Medicaid Management
MMIS Implementation	2	Implementing the Model Medicaid Management Information System - (Minnesota); John C. Anderson, PhD, and Paul Farseth, BA
Provider Relations	24	<u>Michigan's</u> Provider Administrative Review Process; Staff, Bureau of Medical Assistance under Robert C. Bonhag, DMD, MHA; and General Research Corporation
ICF RN Training	28	<u>Texas</u> - First State to Provide Training for RN Consultants to ICFs; Ilse C. Sandmann, MA
PSRO Impact	31	<u>PSRO</u> Impact on Utilization: Forecast in a Cloudy Crystal Ball Nancy J. Berry
References	39	Annotated <u>Bibliography</u>
Coming Events	40	<u>Calendar</u> of Future Meetings and Training Workshops - Medicaid
Publications	41	IMM Reports <u>Order Form</u>

THE INSTITUTE FOR MEDICAID MANAGEMENT

As part of its management initiative for 1977, the Medical Services Administration (MSA) has created the Institute for Medicaid Management. The Institute is intended to be a response to the need for significantly improved planning and more effective implementation of training and assistance for State staff. To be successful, it will require the cooperation of the States in the planning and implementation effort as well as in providing assistance to sister States.

As a part of the Institute for Medicaid Management (IMM) a Journal for Medicaid Management will be published periodically as a vehicle for dissemination of good practices found in some States that may be helpful to others. Appropriate articles and annotated bibliographies on subject areas of use to administrators in management of their Medicaid programs will be included, together with other items.

We urge representatives of State agencies and other interested persons to contribute articles on practices in the Medicaid program which they believe to be exemplary. Appropriate documentation and other supporting material should be included.

Where appropriate, we will perform field work to assure that the practice has wide application.

We see this Journal as a joint Federal/State effort. If it is to be successful, we must have contributions from the States. We also need to know your views on how well we are meeting your needs. Tell us how the Journal can be of the most help to you.

Please forward all communications, contributions, requests for information, and materials, to:

The Institute for Medicaid Management
Division of Program Monitoring
Medical Services Administration, HCFA, HEW
Room 4628, Mary E. Switzer Building
330 "C" Street, S.W.
Washington, D.C. 20201

IMPLEMENTING THE MODEL MEDICAID MANAGEMENT
INFORMATION SYSTEM

John C. Anderson, PhD, and Paul Farseth, BA

The Model Medicaid Management Information System (MMIS) has been subjected to much recent criticism and concern from government administrators, legislators, and providers of health services. Some critics suggest that it is not fulfilling its intended objectives in States where it has been installed, that it is not processing information correctly and on time. Others suggest that although the system may process information correctly, the reports it produces have not been integrated productively into the management of State Medicaid programs (title XIX of the Social Security Act). We believe that careful review of State experience with the MMIS will show the model system to be a sound design for administering Medicaid. The problems which have clustered around the MMIS are real, but they are the consequences of the particular processes that States have used in implementing the design and integrating the system with their administrative operations.

It is not surprising that the MMIS has been difficult to implement and integrate. Researchers and managers, both public and private, have been increasingly concerned in recent years with the problem of how to implement management information systems. In all parts of society examples can be found of failed information system projects, expensive products of hard effort which produced unused information or information that is inadequate to the managerial needs it was designed to satisfy.

Dr. Anderson is assistant professor of management sciences, Graduate School of Business Administration, and member of the Management Information Systems Research Center of the University of Minnesota. Mr. Farseth is supervisor, Catastrophic Health Benefits Program, Minnesota Department of Public Welfare, and was formerly principal management analyst in the department's Medicaid Development Section.

- - - -

Reprinted, with permission, from Public Health Reports, (Volume 92, Number 2, March-April 1977, pages 135-146.

An almost unanimous conclusion of recent research into the problem of implementing information systems is that implementation must be viewed as an ongoing process rather than the last phase of project effort. Success is won or lost all through the analysis, design, and development phases and by the care and flexibility with which the early phases' plans are refined during the final installation of computer programs and administrative procedures. A related conclusion is that information systems, when in place, become dynamic parts of their organizations. Implementation must continue, with the system evolving with the organization.

This paper draws on our observation of the process of implementing the MMIS in Minnesota. We offer some normative conclusions and recommendations to guide other States' MMIS efforts and other efforts in building large-scale information systems, particularly in the public sector.

Background: MMIS and the Minnesota Project

Since its inception in 1966, the federally subsidized Medicaid program of medical assistance for the poor and disadvantaged has encountered an unexpected spiraling of its costs, which now exceed \$14 billion per year in State and Federal expenditures. Administered by State and Territorial Governments and their local subdivisions under the general supervision of the Department of Health, Education, and Welfare's Social and Rehabilitation Service, the program has varied greatly in the effectiveness of its management. Controls on excessive and duplicate payments, investigation of fraudulent claims, and controls on substandard quality of services have often been lacking. Complicated standards of eligibility have led to errors in who may have access to the program's benefits. Lacking the substantial coinsurance involvements of recipients' pocketbooks found in the Medicare program, Medicaid recipients have not objected to large amounts of overservice and to overcharging, which Medicare recipients would find intolerable.

To correct these deficiencies, the Social and Rehabilitation Service developed a model Medicaid Management Information System to guide States in computerizing and upgrading their claims payment operations, fraud investigations, and utilization control efforts.

This model was first published in August 1971, and pilot implementation in Ohio was begun in 1972. In the Social Security Amendments of 1972, Congress provided fiscal incentives to States to set up information systems patterned after the model (Federal assumption of 90 percent of development costs and 75 percent of operating costs of qualifying systems). Those amendments also

required States to generate statistical profiles of providers' patterns of service and of recipients' patterns of service utilization. Group profiles were to provide norms against which individuals' profiles could be compared. Such profiling requires computerized information handling on a scale similar to that envisioned in the MMIS. Requiring it provided further incentive to States to install the MMIS.

The Minnesota Department of Public Welfare responded to the new incentives quickly, beginning work in January 1973 on a centralized Medicaid payments and information system that would meet the MMIS design criteria and would replace the manual processing of claims previously carried on by 87 county welfare departments. Centralized payments for nursing home services were begun in January 1974, and by May 1975 all regular providers of health services were paid through the new system. Computer programs that generate management reports and surveillance profiles were completed by August 1975, and Minnesota was certified for 75 percent Federal participation in MMIS-related operating costs, effective the first of that month.

Since then, the system has been significantly refined, particularly in its benefits recovery capacity and in the tracking of persons eligible for Early Periodic Screening, Diagnosis, and Treatment (EPSDT). During fiscal year 1976, the system processed approximately 220,000 claims and adjustments per month, paying out about \$320 million in benefits by the year's end. Administrative costs for the year came to roughly \$4.5 million. These costs include expenses for provider enrollment and training, claims processing, production of management reports, surveillance and utilization review, medical policy supervision, mailing of explanations of Medicaid benefits (EOMBs) monthly to recipients of services, plus teleprocessing and maintenance of the case information (eligibility) file. The \$4.5 million does not include the cost of audit staff and general overhead costs for the welfare department's executives and support services. Also excluded are the counties' costs--costs of administering the recipient eligibility intake and review process, assistance to clients needing EPSDT services, review of the appropriateness of nursing home patients' level of care, and local review of certain monitored claims for medical supplies. After the exclusions, the administrative cost per claim amounted to about \$1.70, a sum which compares favorably with Medicare experience. Caution is needed in such comparisons, however, as definitions vary as to what constitutes a claim or what expenses are to be included in administrative costs.

In establishing its MMIS payment system, Minnesota transferred an important group of computer programs from the Oklahoma welfare information system to provide the basic structure of its case information system. Most of the other computer programs needed to implement the MMIS model were transferred from the Ohio Department of Public Welfare, the pilot project site. Administrative procedures and the concept of using optical character recognition (OCR) scanning devices instead of keypunching to convert data to computer form were borrowed from the Michigan Department of Social Services. A system for processing nursing home claims was developed locally. All transferred computer programs were substantially rewritten to meet local requirements and to improve their computer efficiency.

Management of the Minnesota project was led by staff from a small consulting firm, assisted by staff from the Minnesota Department of Public Welfare and the information systems division of the State's administration department.

Minnesota's experience with the MMIS was neither smooth nor disastrous. The information system which resulted is not the ultimate version of the MMIS, but it is more than adequate, and it is evolving to meet new needs in the administration of the Medicaid program. Drawing on our experiences in the Minnesota project, we offer here a conceptual discussion of six areas where problems may arise during an MMIS effort, six areas in which key tasks must be addressed:

Defining program and operations policies

Organization planning and defining of roles

Managing and controlling the project

Defining data and output requirements

Provider relations and training

Coping with technological change

Defining Program and Operations Policies

To be worth its development and operating costs, a Medicaid information system must support and execute the program's key policies. Therefore, the policies must be known. In addition, they must be fair, defensible, and capable of enforcement. (In Minnesota, program policies often proved to be unclear at the start, owing to the previously loose-knit administration of the program by many local agencies.)

If policies are ill-defined, they must be clarified. If they are out of date, unfair, or unenforceable, they need to be revised. A management information system as big as the model MMIS has too much inertial mass to risk setting any part of it in motion on a wrong track. The costs of backtracking and fixing errors can be huge--both in dollars and in injustices to providers and recipients of medical care.

Clearly, not all policies can be defined and analyzed in advance of the technical phases of such a project. Indeed, one of the strengths of the Minnesota project was its continuing reconsideration of objectives, policies, and priorities as the political, legal, and administrative constraints on the project became more clear. But it is important to achieve the greatest possible clarity about the program's and the system's goals before beginning.

To make sure that policy is defined, revised, and correctly programmed into a mechanized system of claims payments, staff must be assigned to refine policies, to analyze the impact of new or proposed Federal laws and regulations, and to interpret the policies definitively to systems analysts, health care providers, provider trainers, and claims processing supervisors. Opportunities must be provided for adversarial evaluations of particular policies, lest they be based on inadequate information or set without regard for external consequences.

Organizations going through rapid change or growth are often tempted to limit criticisms from staff and to discourage meddling across organizational lines. This fosters accountability and suppresses fruitless squabbling, but the mediation of policy criticisms (or technical disagreements over methods and procedures) through a few members of a managerial elite may stifle and dry up information sources needed to keep an organization's process of change on target. Forbidding communications between work groups (as some supervisors did during the Minnesota project), particularly if they are working on different aspects of the same problem or function, delays information flows and distorts and filters information which needs to be communicated.

The Minnesota MMIS project overcame initial unclarity about program objectives, policy constraints, and limits on what could be required of outsiders such as health care providers, county welfare offices, and Medicare fiscal agents, by applying techniques discussed in the next two sections of this paper. When the techniques failed or were not applied, the costs were significant. Before discussing those techniques, however, two other aspects of policy definition need comment.

Besides internal policy definition and revision, the leaders of an MMIS project effort must acquire legislative support for statutory revisions of policy. In Minnesota it became necessary, midway in the project, to seek legislation giving the Medicaid program a right of subrogation to recipients' health and casualty insurance benefits (to the extent of the program's expenditures for any given recipient). In other States, legislation has been needed to modernize legal requirements for approval of vendor claims or for keeping records or issuing checks. In addition, existing laws may not give enough authority to a Medicaid program to require standard invoice forms.

Finally, there is the issue of legislative support for developing a new Medicaid management information system. Indeed, this is the first issue encountered, as the State's share of development costs must often be appropriated after much debate over whether "inept State bureaucracies" or "self-serving outsiders" can better be trusted to do a good job at a reasonable cost.

This problem of legislative support was short-circuited in Minnesota by the intervention of the Governor's statewide Loaned Executive Assistance Program (LEAP) during 1972. Eying projections of low development costs from an earlier consultant study of centralizing Medicaid claims processing in-house and the screening portability of the Oklahoma State welfare information system, the LEAP teams assigned to the welfare department forced an early commitment to developing a State-operated MMIS.

Other States may not find such decisions so easy to resolve, nor should they. If the Medicaid agency lacks internal managerial expertise, if the State civil service system is intractable, or if computer and systems support are lacking or outdated, the possibility of buying an established fiscal agent's experience deserves evaluation.

If a contractor is to operate a system after building it, however, several new concerns arise: What incentives does the contractor have to control program expenditures? Is there some risk that the contractor may control program expenditures by denying benefits in an arbitrary way, often after service has been rendered? Does the contracting fiscal agent have any incentive to control its operating costs if it is paid on a "cost-plus" formula? Are its costs and overhead expense required to be reasonable and open to audits? Will the State be able to do an effective audit, probing deeply and carefully enough to challenge the fiscal agent's cost statements?

If a fiscal agent is to be reimbursed on a flat rate per claims, do the performance criteria in the contract insure that any underbid by the agent will not be recovered improperly through slow or inaccurate claims processing? Is there any fine-print provision for formula increases in rates which pass the agents first year underbid losses back to the State in subsequent years?

And if a fiscal agent is selected that later proves too expensive or unacceptable in some other way, how is the State agency to handle claims processing until another agent can be selected and installed? It appears that at least one State has been forced to renew a fiscal agent's contract at unfavorable terms because no other agent could be installed quickly enough. Such misfortunes can be forestalled by careful contract writing, with clear definitions of short-term renewal options to cover periods of renegotiation or changes in contractors.

Organization Planning and Defining Roles

Along with the practical work of project management and control, discussed subsequently, State agencies beginning an MMIS development face a need to review their internal organization for decision and control and the quality of their supervision of local welfare agencies or offices. At the same time, they need also to review their relationships with outside agencies to clarify roles, powers, goals, functions, and the distribution of political influence. Such outside agencies include State health departments, hospital and nursing home rate-setting authorities, professional standards review organizations (PSROs), and health professions' licensing boards.

A Medicaid agency's administrators need to look at the commitment of time available from their top managers and from the directors of local offices. Minnesota's ability to bring its MMIS project to fruition required continuing detailed attention and support from the Commissioner and her deputy. Their involvement was crucial to acquiring and supervising the project's consultant firm, to shaping the project's authorizing and housekeeping legislation, and to forcing decisions from other departments (particularly the administration department, which was responsible for the State computer center, and the personnel department, through which emergency staff appointments and timely acquisition of professional staff had to be channeled). Since the welfare department was at first short of experienced and aggressive staff in the Medicaid policy section, the almost daily participation of the director of the income maintenance division in the project was essential.

In allocating responsibilities, each person's managerial ability needs to be looked at. In every organization there are managers who are comfortable with the status quo, settled in their ways and lacking in the curiosity and assertiveness needed to guide drastic developments. This may be a special risk in government, where tenure can protect the weak and political pressures may housebreak the innovative. If such persons hold key positions, they need clear guidance on what is expected in the new effort. In an MMIS development, everyone works double. Letting those who may turn out to be indecisive, unmotivated, or incompetent know about the extraordinary demands with which they will be faced may make it simpler to relocate them to less stressful positions or to justify their later replacement.

Outside the central Medicaid agency, control of local welfare offices is critical, for these must manage the determination and review of recipients' eligibility, transmit timely and accurate eligibility information to the central office, deal with recipients' practical problems, and maintain other local relationships for the State. A State department is likely to find that the size and sophistication of such local offices or agencies vary. Such variations, the degree of local autonomy (be it legal or habitual), past responsibilities, and past performance should all be considered in deciding what functions to delegate beyond eligibility intake and review and arranging for EPSDT services. Should local agencies answer service providers' inquiries about Medicaid recipients' eligibility days and ID numbers? Should they have a role in reviewing nursing home patients' levels of care? Should they make decisions on renting or buying durable medical equipment? Each State will find different answers. The answers may be misguided, however, if the past and expected capabilities of the local offices are not reviewed, giving close attention to possible causes of past performance failures. Some causes of failure can be remedied. Confusing central office directives on policies and procedures can be clarified. But local autonomy and unwillingness to cooperate are more difficult to change. If county welfare boards refuse to hire sufficient staff at the expense of local property taxpayers, the Medicaid agency may need some means to compel cooperation or to subsidize the counties' costs with State and Federal funds.

Regarding relations with other agencies, the following observations may be helpful.

Medicare fiscal agents. It is desirable to arrange with Medicare carriers and intermediaries for automated exchange of data on payments made for Medicaid recipients. Such acquisition of data on computer tape should be provided for early in an

MMIS project. It eliminates the need to make health care providers bill both Medicare and Medicaid. It improves the accuracy of payments for crossover claims and removes opportunities for provider fraud. It provides more complete data for surveillance and utilization review of services to Medicare beneficiaries. And it costs less (to both the Medicaid and Medicare organizations) than shipping explanations of Medicare benefits on paper from the fiscal agents into the Medicaid shop for manual review, annotation, and keypunching. Liaison is also desirable with Medicare fiscal agents regarding such matters as their relations with hospital utilization review committees and PSROs, sharing of practitioner fee schedules, and coordination of audits of hospitals' statements of operating costs.

State health departments. The Medicaid agency needs timely verification from State health departments of the eligibility of hospitals and nursing homes to participate in the title XIX program. It needs to facilitate health departments' mandatory medical or professional reviews of care given to nursing home patients. It can profit from acquisition of computer files of the social security numbers of persons who have died (in order to purge Medicaid eligibility files). It may need health department assistance in meeting its obligation to provide early periodic screening, diagnosis, and treatment for children. It may want to contribute to institutional rate review activities carried on by health departments. And it may be able to provide useful epidemiologic and health services utilization data to health department researchers.

Professional standards review organizations. Good relationships with PSROs are important to State Medicaid programs because of the contribution the PSROs can make to cost containment and quality assurance. PSRO relationships affect MMIS efforts because PSROs may depend on Medicaid agencies to collect the uniform hospital discharge data abstract for PSRO review. Or, being physician controlled and jealous of their autonomy, they may make it difficult for a Medicaid program to collect sufficient information for claims review, budget planning, and utilization review. In any event, if data are to be collected for PSRO use or in parallel with PSRO collection, agreement on uniform data coding schemes is important, lest hospitals face impossible reporting burdens.

Other compensation systems. Finally, we emphasize the importance to State Medicaid programs of investing more staff, expertise, and systems capability in the recovery of health care benefits to which recipients are entitled. This effort requires close liaison with the health and auto insurance industries and with the Workers' Compensation system. Analysis of Minnesota data suggests that a well operated and aggressive system of claiming recipients' benefits on a national scale could recover more than \$500 million per year in health and casualty insurance, workers' compensation, and dependents' health benefits from employed absent fathers. Minnesota has computerized much of the benefits recovery process, but accomplishing this has required cooperation with the insurance industry and training of local welfare agency staff to insure that good information on recipient coverage is effectively reported.

Managing and Controlling the Project

Project managers must plan to communicate with and actively involve all persons affected by an MMIS project if an effective information system is to be implemented. Having addressed the make-or-buy decisions mentioned earlier and having settled on some combination of consultant (or fiscal agent) and State effort, management must develop routines, procedures, and an organization to carry out the project's tasks. In this regard, we offer several comments.

First, the level of involvement of a consultant organization must be controlled if a State or some other agent is to operate the new information system when it is completed. Minnesota's Medicaid agency assured its ability to operate, maintain, and refine the system by limiting the role played by its consulting firm and by distributing the firm's personnel throughout the project's work groups. As a consequence, almost no components came into the system without State personnel having participated in their detailed design and computer programming. If this had not been done, State operating staff would have been dependent on the consulting firm's system's components and the reasoning behind their particular form.

Next, use of a project-management protocol is desirable, so that all tasks are done in an effective, ordered, and timely manner. Minnesota, following the practice of the State computer center, used a packaged set of procedures (PRIDE, M. Bryce & Associates) for systems analysis and documentation, cost analysis, and job scheduling. The particular package of procedures that a State chooses is not critical, but use of documentation standards, standard task lists for

organizing and phasing work, and standardized procedures for reviewing progress, provides important protection against oversights, ineffective assignments of staff, and failures to keep technical documentation complete and up to date.

Using components of a system transferred from another State should not substitute for analysis of internal requirements, nor should it tempt the project's managers toward unrealistic expectations of how quickly systems development can be accomplished. Minnesota encountered policy differences, technical deficiencies, differences in medical service and diagnosis codes, and other problems embodied in the computer programs it transferred. All these had to be worked out before the programs could be run reliably. When they were not considered, as happened with the surveillance and utilization review programs, which received only minor patches of computer code, the computer outputs contained data of questionable value.

On the other hand, the value of the experience and completed debugging of computer programs inherent in a transferred system cannot be underrated. The imported system's documentation, coupled with queries to its management and support personnel, are valuable tools for training and orienting project staff. The "not invented here" syndrome should not bind a State to this opportunity to avoid errors other States have worked through.

Finally, to insure that decisions are made on an informed basis, the project's decision makers should have the benefit of regular structured information exchanges and technical orientation briefings. Briefings on data processing concepts for policy staff may forestall unrealistic demands on the technical staff for impossible time schedules or impractical computer processing logic. Briefing systems and procedures analysts regularly on the program's objectives, policies, and regulations will help them draw out the policy staff with good questions about the system's requirements and will make the analysts more sensitive to the sequential dependency of each successive computer subsystem.

The Minnesota MMIS project suffered initially from the data processing naivete of policy staff and from systems analysts' inability to define or elicit the necessary decisions from the policy staff. Two factors compensated for these findings. First, during the early stages of development, many of the decisions taken were strategic rather than technical; they were choices of which design components of the system to import from other States. Melding technical and policy expertise did not become a problem until the retailoring of the imports to local requirements began. Second, once detailed design of reports and processing got under way, two major committees facilitated information exchange and discussion of policies and methods.

Formed early in the project, a welfare systems advisory committee (WISAC) drew together State policy and systems staff with representatives of county welfare departments. Meeting monthly, and sometimes more often, the WISAC committee drew from the staffs of the local agencies information about what data could provide for the Medicaid public assistance case information system and what outputs the local agencies needed for internal use and for control of data integrity. The discussions of this group had major impacts on the data set finally installed in the case information system, on the methods of local agency reporting to the system, on the design of the system's reports, and on the establishment of the central eligibility files used for the turnover of adult cash assistance cases to the Federal Supplemental Security Income (SSI) Program.

Beginning work in the spring of 1974, approximately 1 year into the project, a second, even more important committee came into being. The Tuesday morning group was a tactical consortium of about twenty policy staff, systems analysts, and data project managers, chaired by the project coordinator; it included the income maintenance director, acting with the authority of an assistant commissioner. The Tuesday morning group reviewed progress on all key issues, discussed alternative technical design strategies, wrestled repeatedly over how to define or revise unworkable program and operations policies, and reached consensus on priorities and assignments of staff resources. These sessions, often stormy, were crucial to the project's success. During these meetings, the interdependence of the work groups and project actors became clear. Gaps in policy, impossible burdens proposed to be laid on medical care providers, new Federal regulations, and the consequences of programmer misunderstandings were identified and analyzed. Worth noting is that all participants could address any work group's progress, methods, designs, or interpretation of the regulatory environment. This tapping of all participating policy and systems staff persons as information resources consistently led to advance warnings of oversights and impending problems (both technical and political), which could then be addressed before they achieved fatal momentum.

The Tuesday morning group assured coordination of efforts. Because it functioned in a structured but open and nonauthoritarian way, it improved the information base for decisions. Because it operated, for the most part, by consensus (the group felt strong discomfort if any knowledgeable member could not agree), it elicited an uncommon and powerful esprit from its members. Finally, because the higher levels of management participated in the group, it was able to define its outputs without a continuing risk of reversal from above.

Defining Data and Output Requirements

All analyses of management information systems aim at some array of outcomes, typically information out-puts on which operational controls, disbursements, audit trails, budgeting, and strategic management decisions can be based. Defining the content and form of outputs to meet management's and the organization's needs is critical to the success of the project.

The availability of the data requirements and reporting structures identified in the published "MMIS General Systems Design" should not lead a State to assume that this analysis is complete or sufficient for all State requirements. The managers of the Minnesota project found considerable further analysis was required.

We have already said much about the need to clarify, continuously, the program objectives to be accomplished by information management. We stress that the sufficiency, acquirability, reliability, and consistency of data must be assured, and the form in which they are presented must enable the user to find the information needed to make decisions.

Sufficiency. Computer files and the input documents, such as invoices, must contain the data elements needed for automated decisions, computations, and edits. There is a temptation to build tough and lean systems based on minimal data sets. States planning to develop an MMIS will do well to recognize that more data elements will be needed to drive the MMIS than are recommended in the model system distributed by the Department of Health, Education, and Welfare through National Technical Information Service. Data sets smaller than those in the model system may endanger the system's certifiability for increased Federal participation in operating costs.

Acquirability. Data elements to be reported by medical vendors or county welfare agencies must be sufficiently well defined and well organized to make the cost of reporting them reasonable. Procedure and diagnosis codes (for example, the International Classification of Diseases, Adapted, Eighth Revision -- the ICDA-8 -- and the major variant published by the Commission on Professional and Hospital Activities -- the H-ICDA-2) should reflect a consensus of local providers' practice. It is madness to require physicians to code invoices with the procedure codes of the National Association of Blue Shield Plans if the dominant local insurance carriers are demanding use of codes from the third edition of Current Procedure Terminology (the CPT-s). (Local Medicare coding choices are less critical if the carriers are doing their own coding, although codes received on crossover claims passed on by title XVIII carriers should be translatable for utilization profiling purposes).

If data are not reported, redundant sources should be supplied, with system defaults for nonfatal data gaps. For example, Minnesota found that recipient's birthdates on invoices were more accurate than the dates in the eligibility file, but more likely to be missing. Both sources of data are entered in the system, so that discrepancies can be flagged to assure accurate computing of recipients' ages.

Reliability. Besides editing data for plausible values and correct formats, a well built MMIS should have data collection forms designed to prevent errors in filling them out or in keying (or scanning) them into computer processing. Standard invoices prevent reporting errors, but nonstandard conventions for filling them out may create more errors than use of invoices designed specifically for Medicaid. Data reported should be relatively raw. Providers should not have to do complex computations to arrive at net billed charges. The computer can do the computing better, though it may need more operands (data reported) to get started.

Identifiers should contain self-checking digits (computer check digits) where possible. However, if a numeric series of identifier codes has many gaps and few transposition problems, as perhaps in the CPT, the need for check digits is less critical. In Minnesota, the State medical association's re-issue of the CPT contains check digits used by Medicaid but not by Blue Shield. Each feels that it gets payoffs from its approach to the codes. On the other hand, Minnesota's failure to put check digits in recipient identification numbers has been a source of grief.

Codes to be captured should be of workable size, Minnesota's sixteen-digit recipient identification number invites errors each time it is copied, keyed, or scanned, even when it is broken into small blocks.

Finally, data schemes should be designed for easy editing on data entry equipment (particularly key disks and optical scanners), because correction or rejection of defective data by manual operation is most efficient when no major computer processing has been done and when no marrying of errors lists to original documents is needed.

Consistency. Data coding schemes must be consistent over time. If significant changes in schema are undertaken (for example, from ICDA-8 to H-ICDA-2), providers of data must be notified of the changed requirements and given training, computer history records must be translated, and providers should, preferably, be required to enter a flag mark on submissions of new data to indicate use of the new codes.

Similarly, when old fields are redefined in computer records, previous data in the computer history files must be purged before the new application begins.

If MMIS components are transferred from other States, the compatibility of code structures is especially important, because edits and decision trees may be hard coded in COBOL on the basis of code meanings not applicable in the new location. Minnesota was forced to do major overhauls of the Ohio surveillance and utilization review computer programs after it initiated use of the 1964 California Relative Value Studies procedure codes as permissible alternatives to the CPT. All procedure maps had to be double tabled to the second code scheme, and the isomorphic American Dental Association codes had to be filtered out.

Output clarity. Reports should present information needed for making decisions at the level of the intended users. Reports should be organized to flag or focus attention on the exceptional items which require action and to assist retrieval of data on the persons or classes of cases of interest to the user. Following are several pitfalls worth noting:

- . Reports which summarize transaction data to a trivial level of generality.
- . Reports which display so much detail that summaries and comparisons are physically impractical to extract.
- . Reports lacking data needed to interpret detail, such as abstracts of a recipient's history with no diagnosis data or with drug codes but no drug names.
- . Reports in awkward sort orders which disperse data desired to be accessed simultaneously (for example, claims adjustments for a provider which cannot be examined adjacent to regular claims in a provider history.
- . Reports which display comparison data in sort orders different from the reports or files with which they are to be compared.

Finally, we stress again that the contents of reports must be tailored to management's actual needs in decision making, as these are understood in each State. Early in the analysis of Minnesota's system's requirements, it became evident that a large number of statistical reports not defined in the model MMIS or the Ohio system

would be desired. Other new reports had to be developed to service Minnesota's system of charging counties for part of the non-Federal share of expenditures. Hospital cost settlement reports had to be repeatedly redone and refined. Analysis of the distribution of reasons for pended claims was needed.

Rethinking and augmenting the report structures of information system packages are normal tasks in transferring computer systems. The process should not be glossed over, as it can make or break a transfer effort. The new system must generate enough usable information to make it controllable by its managers in its new form and changed environment.

New report structures should not simply recapitulate material in existing reports. The old reports may have been unreliable, incomplete, misleading, unintelligible, or simply unused. It is essential to assure that reports can be generated to support all important operating, planning, and control decisions. Information systems can be decision systems only when their reporting structures support and are compatible with management's decision processes.

Provider Relations and Training

In developing a Medicaid MIS, provider relations and training have at least four major facets: marketing, tapping the information resource, training, and troubleshooting.

Marketing. Installation of the MMIS causes changes in processing requirements and procedures for handling medical claims. New data elements must be reported by vendors of health services. New invoices and forms come into use. Standards for payment of claims tighten. Explanations of payments change. Delays and foulups in payments occur. All of these events mean that the Medicaid agency has a marketing problem with its vendors. It must sell vendors on the value to them of putting up with the new requirements and the expected inconveniences that occur during the debugging of a new system.

Marketing requires direct communication, face-to-face if possible, with affected vendors, to alert them early to impending changes, to persuade them of the good will and honest intentions of the Medicaid agency's staff, to convince them of the social utility of the proposed changes, and to clarify the benefits they may expect to receive (such as improved cash flow). Such communications should be candid and timely but not dogmatic and premature, and the agency staff should guard against making commitments and uninformed promises that later may not be kept.

In addition, good marketing requires liaison with professional associations and influential representatives of provider groups to assure their assent and support for the project. Their support will often be less than generous, since the MMIS lays new burdens on providers, may reduce fees, and promises new forms of provider surveillance. But failure to discuss the new requirements and benefits with provider group leaders will result in resentment, organized resistance to the new requirements, and political problems over misunderstood requirements.

Tapping the information resource. Providers of care know what information they can report, what bookkeeping procedures they use, and their business office costs. They may not know these facts precisely, but they have better information than the Medicaid agency has. The Minnesota agency discovered, to its chagrin, that it is cheaper and politically easier to try early to tailor billing procedures to what is within reach of providers' business offices than to invest in requirements which cannot or will not be met. A State will find it useful to work through its information reporting requirements with providers, business office personnel, and service bureaus early in the development process. This interchange does not require yielding on disputes over capture of data absolutely required in the system, but it does mean keeping open to the possibility that some proposed requirements may be trivial or needlessly clumsy when a simpler or different approach may be more acceptable.

In addition, providers of care believe that they have something to contribute to the definition of fair policies on what services should be covered, subject to which checks and reviews. They do, both individually and through their professional associations and delegates to Medicaid advisory committees. Unless a State's Medicaid and MMIS project staffs are exceptionally large and experienced, provider inputs to redefinitions of policy are invaluable in filling in the State agency's gaps in knowledge and expertise.

Training. Changes in billing and bookkeeping require retraining of providers and, most important, their billing clerks and service bureaus. Training materials must be complete and adequately indexed, with clear examples. Training seminars must be held for billing office personnel, not just for professionals or hospital administrators. Training should be timely, not the week before procedures change. Trainers must know billing and claims processing conventions intimately and have open lines of communication with Medicaid systems and policy staff to obtain quick answers to questions and difficulties which may arise. In addition, trainers should be instructed to identify and communicate back to the agency newly discovered problems and policy confusions, so that they may be corrected.

Because procedures will continue to change as an MMIS is refined, channels of communication with providers should be continuous. Minnesota found that information could be distributed quickly via messages on fortnightly remittance advice billings. Provider bulletins that can be produced and mailed on short notice are often necessary, but these should go through a clearance procedure to control unauthorized "emergency" changes in procedures and policies. Provider handbooks should be indexed so that changes and additions are simple to insert. Minnesota discovered that numbering inserts by section and topic was no substitute for page numbers.

Finally, individual providers will invent unique ways of fouling up both the system and their cash flow. Staff who train provider personnel should be prepared to work with individual providers to locate the cause of their problems. The claims processing system should be capable of referring providers with persistent problems regularly to the training unit, using such tools as provider inquiries and provider specific computer analyses of error-code frequencies in pending claims. In Minnesota's experience, one-to-one communication with providers having consistent processing difficulties has been an expensive but cost-effective method of resolving provider problems.

Troubleshooting. During and after the MMIS' installation, individual providers and the system will have problems. A mechanism is needed for provider inquiries about unpaid, mispaid, and rejected claims. The organizational location is not critical, but this office must have access to the claims and document control (tracing) indexes and to remittance advices and warrant logs. Its staff need access to policy and medical professional staff, to systems analysts and programmer support, and to provider handbooks and systems documentation. Staff who handle provider inquiries must be alert to common problems which may be resolved through provider training, information bulletins, and handbook revisions, or by reprogramming computer edits and billing conventions. In Minnesota, this function, along with processing of requests for adjustments, is handled by the staff of experienced medical claims analysts responsible for reviewing excepted claims.

Coping With Technical Change

The model MMIS is a design for a large and complex computerized information system. Building it makes demands on computer facilities and their personnel. Replacing clerical operations with computer processing drastically changes established document handling and decision making routines. Establishing new management functions dependent on computer outputs changes managers' modes of access to decision data, as well as the sorts of data available. Coping with such changes is, in large measure, a problem of managing people, of helping them to organize and adjust to a new work and information environment.

The adjustment can be eased by giving care to the technological changes which impact the work environment or complicate the computer system. We discuss some common sources of technological difficulty in this section.

Need for new computer and terminal hardware. Bringing up a system in a computer center without sufficient disk file, tape drive, or line printer capacity may necessitate rewriting of transferred computer programs or cause losses in computer efficiency. Conflicting demands for central processing unit time or computer core may delay production programs and occasionally force skipping the production of some management reports. Outdated telecommunication systems may compromise the timeliness of eligibility files or increase the production and distribution load of paper and microfiche reports.

Minnesota's experience establishes that a separate stand-alone computer controlled by the Medicaid agency is not mandatory for MMIS processing. However, it does illustrate the need for active facility planning and organizing, and careful scheduling with a State's information system department.

Borrowed programs in nonstandard languages. Transferred MMIS system components may require conversion of hardware-specific shortcuts taken is what is ostensibly American National Standards Institute COBOL. Transferred components may be tied to proprietary data base software, which must be purchased if new file interfaces are not to be developed.

Borrowed computer programs which do not match their documentation. Program people and systems analysts should be alert during the implementation of a transferred system that the computer code for edits, file organizations, and decision trees may no longer match the narrative documentation.

Optically scanned vendor invoices. If optical scanning of invoices is used for data entry, providers of health services need to know how they must type and handle their invoices. (They will also need an explanation of how their claims will be paid more quickly through use of OCR technology.) A multifont OCR device itself will need fine tuning of its character screens to assure that it can read all common typewriter and line printer fonts used on the invoices.

Data display media. Users of computer outputs should receive data in intelligible formats in a medium suitable to their use. Random lookups in large, frequently updated data sets are easiest to do using on-line video terminal inquiry or face indexed COM (computer output to

microform) microfiche. Proof lists, management data, and error resolution forms should be on paper so that notes and computations can be written on them. Reports of an audit trail character or of other possible historical interest should be reduced to microfilm or microfiche for permanent storage, regardless of how the prime user's copies were produced.

Provider and service bureau computer limitations. If providers rely on their own or service bureaus' computer systems for billing or accounting services, the computer systems create a need for additional lead time for providers to respond to new State requirements.

Conclusions

This discussion of Minnesota's experiences has highlighted a number of concerns for other States planning to implement the model Medicaid Management Information System. Some infortuitous decisions and problems have been touched on which Minnesota could have avoided with the hindsight of today. On the whole, however, we believe that the Minnesota project was effective. The final product has proved acceptable and is well on its way to becoming a true management information system for Minnesota's Medicaid program.

Attempting to consolidate our recollections regarding critical issues was difficult. Attempting to summarize them further is perhaps a disservice, because the preceding discussion is but the tip of the iceberg; many underlying observations and empirical facts could usefully be explored. Nonetheless, at the risk of oversimplification, some general conclusions and recommendations are in order.

States beginning an MMIS project should actively seek available knowledge and expertise in the MMIS area. States beginning today have an advantage in that Federal guidelines for system design are now available, and their interpretation is clearer than during Minnesota's project. Federal staff who have worked on State site audits have clarified their interpretations of the design requirements and are available for advice. Other States have been through the development experience and can provide insight, some of which has been documented in this paper.

It should be recognized that the MMIS (or at least some of the subsystems) may lend itself to a system transfer effort, noting on the one hand the benefits of available structure and savings of time and money inherent in such transfers, and on the other hand, the risks of policy, code structure, and hardware incompatibility, the dependencies on other organizations, and the behavioral complications of such projects. Transfer processes themselves must be carefully structured to insure successful implementation. Cost differences should be explored thoroughly.

An evolutionary development of the system should be planned. The target should be clear before beginning, but an attempt to proceed intractably down a prescribed path to the final product will compromise the results. The business of project management is to firm up requirements' analyses and systems' designs to the best possible state at any given time, leaving appropriate flexibility and logical hooks for enhancement where necessitated by organizational needs. The development of information systems is a learning process--for managers in defining their goals, for both management and systems analysts in deciding the kinds of information needed to support management decision making and operational control, and for systems designers and programmers in learning how best to capture and manipulate data with accuracy, flexibility, and economy.

Structured participation of key individuals and organizations at strategic points in the development process is imperative; unstructured participation can be more of a hindrance than a help. Participants must be carefully selected and they should include persons who are knowledgeable about operational needs, and who can understand policies and procedures within affected organizations.

Early and adequate communications with providers, other agencies, and other organizational units within the parent organization are critical. What participants feel must be noted as well as what they can document, since inarticulate feelings are often clues to information needed for successful implementation.

One of the strengths of the Minnesota project was structured participation. One of its shortcomings was that it did not push structured participation further than it did.

In an MMIS project, the organization itself must evolve. Information flows, informal communication and authority structures, formal responsibilities, and basic functioning of the organization will be affected by the development and the ongoing new operations. The process of organizational change must effect an orderly, informed transition. When organizational growth is necessary, skill requirements and staff resources to meet these requirements must be carefully examined. Staffing by the "good person" approach without due consideration of the skills required can cause delay, error, and loss of organizational rapport, and it can bring about other problems associated with replacement of poor choices of personnel.

The design process must be policy driven. Policies should not be decided by bouncing them off the design, nor should they be locked up in advance of the design. Rather the definition and documentation of

policies, as well as assessments of their flexibility, must be a continuous part of the design process. Legislation must be planned for, and the time lags associated with the legislation must be anticipated.

While organization and behavioral changes are prominent issues in MMIS implementation, technological change must also be managed. Changes in technology are easier to plan and assess than organizational changes, but failures may cause delays, increased costs, and organizational problems.

* * * * *

Additional Information on the Medicaid Management

Information System

Several publications useful to Medicaid project managers are available from the National Technical Information Service (NTIS), Springfield, Va., 22151. Request by NTIS numbers.

. Social and Rehabilitation Service, U.S. Department of Health, Education, and Welfare: Medicaid management information system. General systems design for title XIX. Ed. 2, Washington, D.C. December 1973, 5 volumes. PB 236-550, \$37.

. Social and Rehabilitation Service, U.S. Department of Health, Education, and Welfare: Medicaid management information system. General installation guide for title XIX. Washington, D.C., June 1972.

. Social and Rehabilitation Service, U.S. Department of Health, Education, and Welfare: Model training program for implementing the Medicaid management information system. Washington, D.C., March 1973. PB 217-222, \$5.75.

. Social and Rehabilitation Service, U.S. Department of Health, Education, and Welfare: S/UR operational techniques. Washington, D.C., February 1973. PB 216-158, \$8.50

. Social and Rehabilitation Service, U.S. Department of Health, Education, and Welfare: MARS operational techniques. Washington, D.C., spring 1974. PB-216-159, \$7.25.

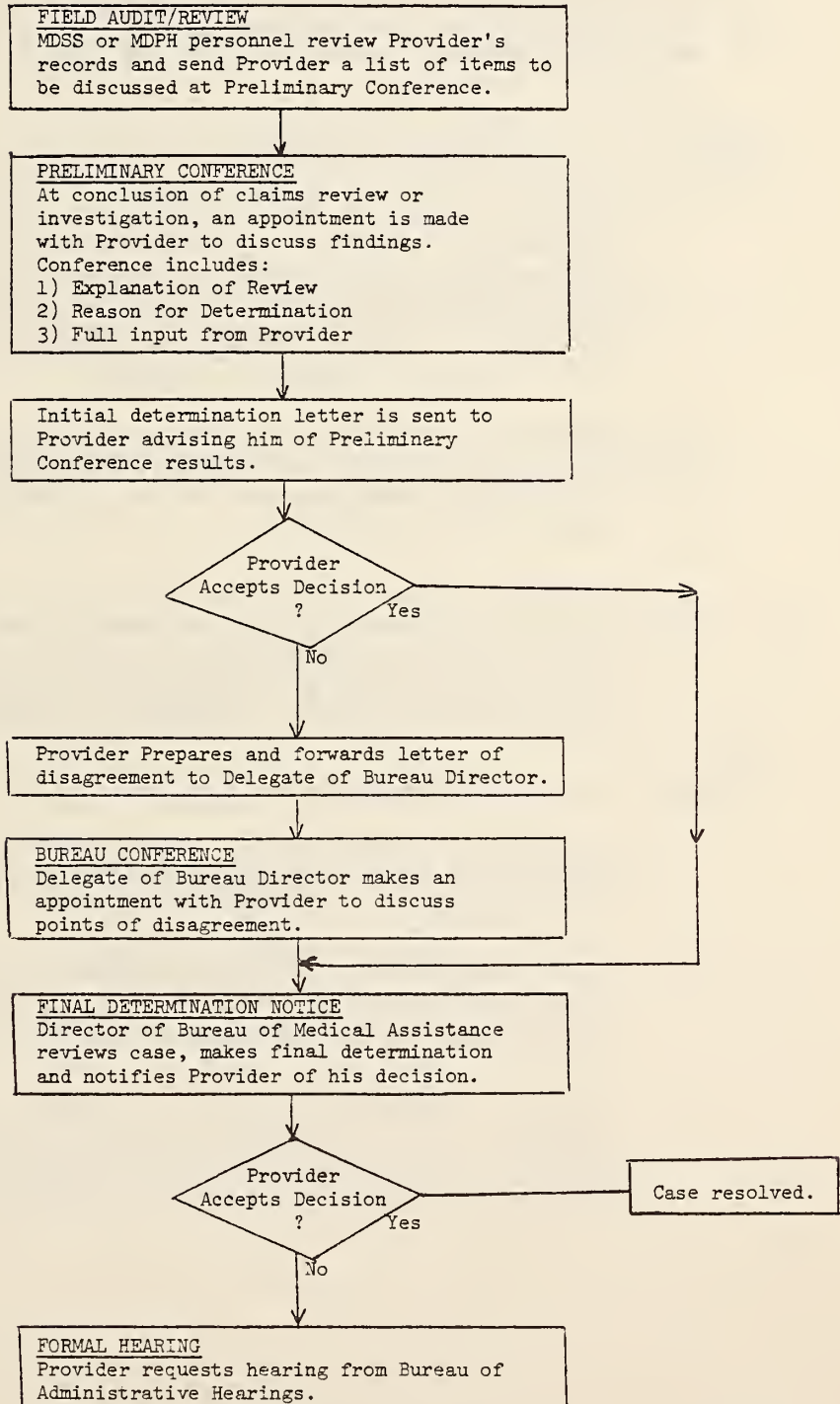
MICHIGAN'S PROVIDER ADMINISTRATIVE REVIEW PROCESS*

The Medicaid program in Michigan is run by the Department of Social Services, which is the designated single State agency. Important functions are also performed by the Department of Public Health, which is an administratively separate government agency. Overall, there are a number of key elements in the Michigan program that appear to be major contributors to the program's success -- the things that make it go. These range from the philosophical approaches adopted by the State and other similar factors -- hard to quantify, but of vital importance in setting the whole tone of the program -- to fairly concrete characteristics whose values are readily apparent. Many of these key programs should be useful to any State that wishes to improve its own program.

It is true, of course, that States differ in terms of their Medicaid program characteristics, political and legal environments, and in other ways, and that some of the specific features of the Michigan program might, therefore, have to be adapted somewhat. We believe, however, that the basic elements of many of Michigan's successful activities are not unique to Michigan per se, but could be valuably applied in almost any State.

The Michigan Medical Program Administrator enjoys excellent relationships with most segments of the provider community in spite of the fact that Michigan takes a relatively hard line when it takes action against the provider. The approach used puts the burden of proof on the provider. If he cannot prove that he, in fact, delivered the billed service, billed properly, or otherwise support the bills submitted, the State simply refuses to pay. This is a substantially different approach than used in many other States, where the burden rests with the State to prove that the provider was wrong. The price that was paid for this approach was a number of court battles to establish the right of the State to handle proceedings in this way, but, the price has been clearly worth it; shifting the burden of proof has made the program far more efficient in terms of its payback rates.

*References are from a case study, Fraud and Abuse Control in Michigan, by John J. McCord, General Research Corporation & SysMetrics, Inc., under HEW/SRS Contract #SRS-500-75-0004.

BUREAU OF MEDICAL ASSISTANCE
RECOVERY AND INVESTIGATION DIVISIONMEDICAID PROVIDER REVIEW PROCESS

Step I - Field Audit/Review - visit is made to the office of a Medicaid provider. Provider records are reviewed and determination is made on the following questions:

1. Is the recipient classified in the proper level of care?"
2. Were the services delivered as billed?
3. Were the services appropriate for the diagnosis and subsequent follow-up?

Step II - Preliminary Conference

- A. When the claims review in Step I has been concluded and results compiled for services performed, an item by item synopsis is sent to the provider and an appointment is requested to meet with the provider to discuss points enumerated and receive input for justification of disputed services.
- B. Investigators return to office and input adjustments are made. A final determination letter is sent to the provider advising him of the preliminary conference results.
- C. Provider either accepts or rejects the decision. The case is closed if the decision is accepted. If it is rejected, the provider prepares a letter outlining the points in dispute, his position, and forwards the letter to the Bureau Director's delegate.

Step III - Bureau Conference

- A. The Bureau Director's delegate makes an appointment with the provider and discusses the points in disagreement.
- B. Input adjustments, if any, are made and the final determination is made by the Bureau Director with the provider being notified of the decision.
- C. Provider again either accepts or rejects the decision. If the provider accepts the decision, the case is closed. If the provider rejects the decision, the hearing process continues to Step IV.

Step IV - Formal Hearing

Provider sends notice to the Bureau delegate requesting an administrative hearing as provided by Administrative Procedures Act, Chapter IV, 1969, as amended.

The provider outlines the points in dispute, his position on these points, and any evidence or documentation to support his position.

The Bureau delegate then forwards this information to the Bureau of Administrative Hearings requesting an administrative hearing. A copy of the information and the case file is also sent to the Office of the Attorney General.

The Bureau of Administrative Hearings then schedules the hearing and makes a decision based on the evidence presented by both sides.

As further procedures become necessary, the State has followed a similar approach. These steps will be reported in later issues of the JOURNAL.

Flow Chart and Procedures developed by Michigan State staff in conformance with State of Michigan's Administrative Procedures Act of 1969.

For information on Michigan MMIS and Medicaid Information contact:

Robert C. Bonhag, DMD, MHA, Director
Bureau of Medical Assistance
300 South Capitol Avenue
Lansing, Michigan, 48926

TEXAS - FIRST STATE TO PROVIDE TRAININGFORRN CONSULTANTS TO ICFS

by Ilse C. Sandmann

One January 12-13, 1977 the University of Texas, at Austin, School of Nursing, Continuing Education Program offered a two-day course for Registered Nurse Consultants to Intermediate Care Facilities. This was the first of six such courses. The second was held on February 2nd and 3rd, the third on February 10th and 11th. Because Intermediate Care Facilities (ICFs) provide care that is less than skilled, but more than room and board, they are not required to staff the facility with Registered Nurses. A Licensed Practical Nurse (LPN) may serve as the health services supervisor.

The ICF Regulation, (45 CFR 249.12(a)(9)(A)), states: "... where a LPN (or vocational nurse) serves as health services supervisor, consultation is provided by a RN, through formal contract, at regular intervals, but not less often than 4 hours weekly."

Many of the RN consultants have not had previous exposure to the consultation process and some have had no ICF or nursing home experience. However, several Geriatric Nurse Practitioners are also consultants. It is recognized that in order to improve services to residents in ICFs, LPN health services supervisors require assistance in nursing management as well as nursing skills. The RN consultants welcomed the additional training to improve their skills in providing consultation assistance for LPNs in ICFs.

Miss Sandmann joined the Medical Services Administration in 1967 as a Health Care Analyst and Nursing Advisor, where she is currently in the Division of Long Term Care working with responsibility for Home Health Service, RN Consultants to Intermediate Care Facilities and Alternatives to Institutionalization.

She is a graduate of Columbia University in New York City from which she received her B.S. and M.A. degrees. Miss Sandmann is a Public Health Nurse, has worked with the Henry Street Visiting Nurse Service, and as an Army Health Nurse with Military Government in Germany. Before coming to HEW, Miss Sandmann was with the American National Red Cross in the United States and in Europe.

The Health Resources Administration's (HRA) Division of Long Term Care contracted with the American Nurses Association (ANA) to prepare a manual for RN Consultants to ICFs. This manual was distributed to State Title XIX Agencies, State Health Departments, and State Survey Agencies, as well as to selected other agencies.

The three Texas courses were attended by about 124 RN Consultants. The HEW Regional Office of Long Term Care Coordinator, Ms. Jewel Jackson, in Dallas, utilized HEW funds for training of provider personnel to underwrite the cost of training through contract with the University of Texas School of Nursing Continuing Education Program. Two other two-day courses are scheduled for the month of April. Other sponsors were the Texas Nurses Association, the Texas Department of Health Resources and the Texas Department of Public Welfare (Nursing Home Division).

The promotional brochure describes the two-day Workshop as "designed for registered nurses who are currently functioning as RN Consultants to nursing homes. The major goal of the course is to promote more effective consultation services and better utilization of self as a professional consultant for long term care facilities. The program content focuses on method of consultation, steps of the consultation process, expectations of the facility and expectations of the Nurse Consultant as prescribed by Federal and State standards. Participants are given the opportunity to discuss and work on common problems encountered in providing consultation services. Teaching/learning activities consist of informal lecture/discussion, role playing, small group exercises, and audio visual media."

It goes on to list the objectives as:

- "1. Describe consultation as a method of working with people.
2. Name steps in the consultation process and identify techniques utilized in the process.
3. Cite specific behaviors that enable the Nurse Consultant to function more effectively.
4. List behaviors/activities that may be expected of the Nurse Consultant and the source of these expectations.
5. Using specified consultation techniques, apply in prescribed consultation situations, knowledge of the Federal and State standards for consultants."

Comments from nurses who have completed the courses indicate their need to organize themselves as a group -- perhaps a Conference Group in the State Nurses Association. They reported that when changes in ICF programs occur, they are the last to be informed. They felt that for the first time they know what their work should be. Many have been providing actual services instead of helping the facility determine its problems and finding solutions to them. They said that they are going to rewrite their contracts as a result of their new knowledge.

Other States may want to provide similar training in order to improve services to ICF residents. For further information about the program contact:

Ms. Joyce Hoover, Director
Continuing Education
University of Texas at Austin
School of Nursing
1700 Red River
Austin, Texas 78701

For information with respect to funding or coordination of the training write to:

Ms. Jewel Jackson
Office of Long Term Care
Office of the Regional Director
Region V - 1200 Main Tower Building
Dallas, Texas 75202

Other courses will be available through Local Nurses Associations, colleges, and other agencies.

PSRO IMPACT ON UTILIZATION:

FORECAST IN A CLOUDY CRYSTAL BALL

by Nancy J. Berry

Insufficient data, conflicting theories show all possible
but unpredictable, PSRO effects on inpatient utilization

Various and contradictory predictions are being made regarding the effect that PSRO implementation will have on the use of health care facilities and services. This article will review certain provisions of the legislation, available data, and various theories in order to examine the program's potential impact on future acute care and long-term care needs.

Regulations and resistance

The purpose of Section 249F of P.L. 92-603 (Social Security Amendments of 1972) is "to promote the effective, efficient, and economical delivery of health care services of proper quality" that are paid for under the Social Security Act and that will be paid for only as long as they "conform to appropriate professional standards for the provision of health care."¹ The amendment provides for the implementation through Professional Standards Review Organizations (PSROs). This review requirement was prompted by the Senate Finance Committee in response to rising Medicare and Medicaid costs. It is generally recognized as a cost control measure, with secondary emphasis on quality assurance of health care services.

A PSRO must represent a substantial number of the practicing physicians within its area; however, in the absence of such a PSRO, the Secretary of HEW may designate another organization with professional medical competence to serve as the area's PSRO. A PSRO is required to review the care provided to Medicaid/Medicare inpatients in short-term general hospitals and to develop a plan for reviewing the care provided in Medicare/Medicaid patients in long-term care institutions. In short-term general hospitals,

Nancy J. Berry is a planning associate with the United Way of Greater St. Louis, Inc. She was a planning associate with the Alliance for Regional Community Health, Inc., St. Louis, when this article was written.

- - - - -

From Hospitals, J.A.H.A.: Reprinted, with permission, from Hospitals, Journal of the American Hospital Association, (Volume 51, Number 4 February 26, 1977, pages 57 through 60.

admission certification that is concurrent with or prior to admission, review of length of stay, and medical care evaluation studies must be conducted by the PSRO. In addition, the PSRO must develop hospital, practitioner, and patient profiles and must analyze them for conformance with established criteria for appropriate and acceptable quality of care. The PSRO is required to allow inhospital committees to conduct the review process, if it judges these committees to be capable of effective review.

Sanctions to discourage providers and practitioners from ignoring the PSRO's findings are primarily financial. Medicare and Medicaid claims require PSRO approval prior to payment. If a provider or a practitioner persists in noncompliance with PSRO standards, the Secretary of HEW may terminate or suspend Medicare or Medicaid payments, or he may require the provider or the practitioner to pay for the unnecessary or improper services (up to \$5,000).

Although attitudes are widely divergent, many physicians have identified PSROs with "cookbook medicine," loss of confidentiality, sacrifice of quality for cost control, and unwarranted interference with the private practice of medicine. Some hospitals fear that PSRO requirements will increase administrative costs and will decrease revenues by reducing lengths of stay, occupancy rates, and use of ancillary services. Repeal of or drastic change in the program seems unlikely. However, opposition by physicians and hospitals easily could cripple the effectiveness and the continued development of PSROs.

A review of peer review

Most data from peer review mechanisms developed prior to PSROs suggest that review mechanisms will, to some extent, reduce overall use of acute care and skilled nursing care for inpatients. Some of these mechanisms, their results, and their possible implications are discussed here:

Utilization review, probably the least effective of the various mechanisms, has improved the quality of care but has had little effect on the use of acute care facilities.² This outcome has developed at least partly because the program lacks sanctions and incentives for decreasing use, except when a shortage of beds occurs. Even without utilization review, peer pressure among medical staff members encourages effective use when a shortage of beds occurs.

Experimental Medical Care Review Organizations (EMCRO), consisting of various types of review organizations, reduced hospital use, at least in the short run. Their long-term results cannot be predicted;

they may identify and address existing gaps in care and areas of underuse of facilities, which eventually could outweigh initial savings and increase demand.³

The New Jersey Blue Cross Approval by Individual Diagnosis (AID) Program has no direct sanctions against hospitals or physicians, but it has become a significant factor in the use of New Jersey's care and extended care facilities and home health services. Changes in the Blue Cross service population, reimbursement policies, technology, and other factors must be considered in interpreting figures on admissions, lengths of stay, and use under AID.⁴ However, initial interpretation suggests that increasing admissions to acute care facilities may balance decreasing lengths of stay; that decreasing admissions to extended care facilities may balance increasing lengths of stay; that home health care is increasing both in number of patients served and in number of visits per patient; and that a consistent and continual review, even without strict regulation, can significantly affect use.

The Certified Hospital Admission Program (CHAP), Sacramento, CA, reviews and certifies one company's health plan, Medicare and Medicaid admissions in hospitals and nursing homes, and a prepaid plan. Its operations and powers are quite similar to those of a fully developed PSRO. CHAP has proved to be very effective. For example, one study found that, from May to December 1970, CHAP reduced Medicaid admissions by 11 percent and length of stay by 6.4 percent.⁵ CHAP also has reduced skilled nursing facilities' admissions and lengths of stay by denying coverage to patients who need only custodial care.

A study was done by the Multnomah Foundation for Medical Care, Portland, OR, to measure the results of the Concurrent On-Site Evaluation and Review Effort (CONSERVE). A 22 percent reduction in length of stay was indicated, based on comparison with length-of-stay data for the same diagnosis during the same quarter of the previous two years. This reduction is dramatic but it should be viewed cautiously because of the limited data base.⁶

The Hospital Admission and Surveillance Program (HASP) in Illinois initially reduced length of stay for Medicaid patients by one day. However, Flashner and others predict that PSROs eventually will reduce the number of unnecessary short-term stays, thereby raising the average length of stay. Therefore, measurement of effectiveness must be based on admissions and hospital days per 1,000 persons who are eligible for Medicaid. Flashner also observes that Medicaid patients are admitted for many conditions that generally are avoided or that are treated earlier on an ambulatory basis by other population groups, and that Medicaid patients seldom are admitted for many of the conditions that frequently hospitalize middle-class patients.⁷

These observations by Flashner indicate that problems may be encountered in projecting PSROs' impact on the general population based on data from Medicaid populations. If reasons for seeking hospitalization are not comparable, there is no basis for valid projections. These observations will also raise the following questions: Will improved ambulatory care meet needs before hospitalization is required, thereby reducing use of inpatient care, or will it identify more unmet needs, thereby increasing use of inpatient care? One study concluded that accessible, comprehensive ambulatory care significantly reduced the hospitalization needs of a high-risk, low-income population.⁸ However, further investigation of this complex question is needed.

All of these programs indicated some reduction in use, ranging from 6.4 percent to 22 percent in length of stay. However, these figures should be viewed as indicators of direction rather than as accurate measures of PSRO's potential impact.

PSRO projections: pro, con

Making predictions about PSROs' effects on the health care delivery system is hazardous. Available data are limited in quantity and in general applicability. Often, they are not comparable, because they are derived from programs with different purposes, assumptions, criteria, and population groups.

In addition, the structure of the PSRO system further complicates prediction. Each of the 203 PSROs will develop its own standards and criteria. Although there undoubtedly will be significant similarities there also will be significant differences. For instance, there is wide variation in lengths of stay for specific diagnoses among different areas of the country. Even if all PSROs used the same percentile of PAS regional length-of stay norms, standards and criteria would vary widely.

The effectiveness of PSROs will depend on leadership, on acceptance by the health care community, and on administrative expertise. Expertise initially will depend on the experience that the participants have had with PSRO-type review. PSROs that grow out of review programs will have a head start of several years on organizations that are newly formed or not yet formed.

Another uncertainty is the population that will be affected by PSROs. Initially, only short-term general hospitals' inpatients who are eligible for Medicaid, Medicare, or Maternal and Child Health coverage will be reviewed. It is assumed that the third-party carriers will want to contract with the PSROs if the program appears to

effectively control costs. Eventually, long-term care facilities' inpatients will be reviewed. PSROs may apply to examine ambulatory and home health care, but they probably will not do so until inpatient review is well developed. The timing and the scope of these changes will be potentially significant for PSROs' effect on bed needs.

The most significant unknown is the persistently anticipated national health insurance program, which could encompass any number of programs and for which it is impossible to identify a probable implementation date.

Although all predictions require some assumptions, the multitude of assumptions required to project the impact of PSROs far outweighs the available data.

There are several rationales for predicting that PSRO will decrease demand for and use of acute care beds and long-term care beds. Some are supported by data; others are based on assumptions; all are possible. A brief discussion of these rationales follows:

- . An initial decrease in length of stay will occur as a reaction to implementation of organized review. This phenomenon has been experienced in some institutions, and has been attributed to increased physicians' awareness of proper bed use. It obviously will occur only if there is overuse. It also may be temporary; if review is ineffectual, physicians probably will return to their former patterns. This rationale also could apply to unnecessary short-term admissions.

- . Decrease in lengths of stay and in the number of necessary admissions will occur as physicians examine their practice patterns in response to PSRO review.⁵ These results will occur partly because of the PSROs' power to deny Medicare or Medicaid payment for unnecessary or inappropriate services and partly because of the educational impact of PSRO review. Physicians involved in performing review should become particularly aware of their own practice patterns. This rationale also assumes that inpatient facilities are being overused.

- . Length of stay in acute care facilities will decrease because of discharge planning that better uses long-term care facilities and home health care. Improved discharge planning also will decrease the number of hospital days resulting from nonmedical problems, such as poor communication with relatives and unrecognized social service needs, that delay discharge. This rationale is based on the assumptions that (a) improved discharge planning will develop in response

to PSRO pressure to eliminate delayed discharges and (b) long-term skilled nursing care, ambulatory care, and home health care services are available or will be developed to meet the demand.

. Length of stay will decrease, because correctable inefficiencies in the system will be identified by the PSROs. Improvements in diagnostic test scheduling and reporting, surgical schedules, and admission procedures could significantly reduce lengths of stays in facilities that have poorly organized systems. The PSROs' emphasis on such areas also might increase physician cooperation in improving them. These improvements would have a much smaller impact on the use of long-term care facilities.

Other rationales would indicate either that PSROs will not effect demand or that they will increase demand for and use of inpatient facilities. If either of these situations occurs, new legislation or new HEW regulations probably will change the PSRO program in order to effect cost control. A brief discussion of these rationales follows:

. Any decrease in length of stay will be balanced by an increase in admissions. This rationale is based on the theory that available hospital beds create demand.

. Length of stay will increase in response to the standards of care developed by PSROs. As practicing physicians are made aware of the norms and the criteria for care, they may incorporate more tests and procedures in diagnosis and treatment in order to avoid malpractice claims and criticism from the PSROs. Such use of the criteria as a model or checklist will proliferate the technical practice of medicine with little correlation to the efficacy of the procedures.⁹ This misuse of the criteria would result in "cookbook medicine." An effective PSRO also should address this type of overuse, but it may be difficult to identify and eliminate.

. PSROs will not change physicians' practice patterns, because physicians performing the review for the PSROs will hesitate to criticize their fellow practitioners. This phenomenon was experienced in many utilization review situations because of traditional professional attitudes and because all of the reviewing physicians also were being reviewed. PSROs only partially address this situation by widening the review from a single institution to multiple institutions and multiple medical staffs and by using objective criteria. However, PSRO reviewers must be active members on at least one of the hospital medical staffs in the area, and hospitals are allowed to conduct their own reviews as long as they are judged to be effective. Therefore, peer pressure still is an influence and may be a significant problem in some PSROs.

. If there seldom is a shortage of beds, physicians may tend to use length-of-stay norms as the minimum lengths of stay. For example, if the initial checkpoint is the 50th percentile of PAS length-of-stay norms and is six days for a particular diagnosis, under non-PSRO conditions, 50 percent of the patients admitted for that diagnosis were released in six days or less. However, if physicians consider that six days is the amount of time that they are allocated to treat a patient with that diagnosis in a routine case, they may tend to use the full six days even when the patient requires fewer days. This practice would increase overall length of stay and overall cost per case because of overuse in routine cases.

. If PSRO pressure to reduce overuse of inpatient facilities leads to improved and increased ambulatory care, previously unrecognized need for inpatient care may be identified and may be translated into demand. New demand may balance or outweigh any decreases in use of inpatient facilities that may have been achieved by PSROs. The PSROs would have succeeded in reducing unnecessary and inappropriate use and, thereby, in increasing quality of care, but not in reducing overall cost.

. Decreased use by Medicare and Medicaid patients will be balanced by increased use by other patient populations. This view is based on the assumption that available beds create demand. This situation will change with the proportion of patients reviewed by PSROs and as various third-party payers contract with PSROs for review.

In conclusion-----inconclusive

Number of admissions, length of stay, and available alternate services are primary factors in the determination of inpatient bed needs. In turn, they are affected by changes in and interactions among technology, physicians' practice patterns, financing mechanisms, and consumer attitudes. Without data on PSROs' effect on each of these factors, it is, at best, difficult to choose among the viewpoints presented here.

Therefore, although PSROs should be recognized as having a potentially significant influence on demand for and use of acute care and long-term care services, their impact cannot yet be quantified validly. A mechanism for measuring the impact of PSROs should be developed by Health Systems Agencies and should be implemented as soon as possible in order to provide sufficient data with which to update and revise projections of demand for facilities.

References

1. P.L. 92-603, Title XI.
2. Foster, J. T. Utilization review is a great idea, but does it affect utilization? Mod. Hosp. 110:95, Feb. 1968
3. Sanazaro, P. J., and others. Research and development in quality assurance; the Experimental Medical Care Review Organization program, New Engl. J. Med. 287:1125 Nov. 30, 1972.
4. Correspondence with Robert J. Persak, Blue Cross of New Jersey, Oct. 31, 1975.
5. Frederick, L. PSRO's: how the first ones are working. Med. World News. 15:53, Oct. 25, 1974.
6. Multnomah Foundation for Medical Care. A Proposal for Operations as a Conditionally Designated PSRO. Portland
7. Flashner, B. A., and others. Professional Standards Review Organizations. J. Amer. Med. Assn. 223:1473, Mar. 26, 1973.
8. Bellin, S. S., and others. Impact of ambulatory-health-care services on the demand for hospital beds. New Engl. J. Med. 280:808, Apr. 10, 1969.
9. Brook, R. H., and Appel, F. A. Quality-of-care assessment: choosing a method for peer review. New Engl. J. Med. 288:1323, June 21, 1973.

HOSPITALS, J.A.H.A.

ANNOTATED BIBLIOGRAPHY

Hitt, David H., "Reimbursement System Must Recognize Real Costs," Hospitals Vol. 51:1 January 1, 1977. Pages 47-57.

The article notes the present payment system must be replaced with a national prospective rate system under certain conditions, that there is increased need for more effective and efficient management. This is worth reading for pointers.

"Medicare Fee Schedule Plan Attacked," American Medical News, February 28, 1977. Page 3.

A national fee schedule is attacked on the basis that it would usher in second class medical care for the elderly.

Also, in discussing the role for National Health Insurance, Dr. Holden is quoted that NHI would increase expenditures.

Many other items of interest to Medicaid Management are in this particular issue, such as "Carter's Hospital Cap Plan Under Attack by AHA, FAH."

Bennett, Amanda, "Canada's National Health Plan," Wall Street Journal. 57:16 December 13, 1976.

Analysis of the Canadian experience gives some warning to what could happen in the United States. An increase in utilization and claims is under study. A deterrent system was dropped, however, the government is compelling the provinces to forcefully deal with inflation.

CALENDAR OF FUTURE MEETINGS

AND

TRAINING WORKSHOPS

Institute for Medicaid Management

"Patient/Provider Profile (S/UR) Conference"

June 8-10, 1977 -- Atlanta, Georgia

* * *

"Institutional Reimbursement" Conference

July 19-22, 1977 -- Milwaukee, Wisconsin

* * *

"Issues Relating to Independent Professional Review
Care for the Mentally Retarded"

September 8-9, 1977 -- Kansas City, Missouri

* * *

"Third Party Multi-State Workshops"

March 29-30, 1977 -- Nashville, Tennessee

April 25-26, 1977 -- Salt Lake City, Utah

May 09-10, 1977 -- St. Paul, Minnesota

June 28-29, 1977 -- Pittsburgh, Pennsylvania

July 26-27, 1977 -- Albany, New York

Sept. 27-28, 1977 -- Tulsa, Oklahoma

* * *

Long Term Care

"ICF/MR Final Regulations Conference and Training for
Regional and State Office Staff"

May 18-20, 1977 -- New York, New York

May 25-26, 1977 -- Atlanta, Georgia

June 01-03, 1977 -- Dallas, Texas

June 08-10, 1977 -- San Francisco, California

INSTITUTE FOR MEDICAID MANAGEMENTORDER FORM

For IMM reports which are available to State and Federal personnel who are directly concerned with the Medicaid program:

- ☐ Papers from the Third Party Liability Workshop -
Chicago Conference, July 27-28, 1977
- ☐ A Guide for the Control of Erroneous Medicaid
Expenditures - July 30, 1976
- ☐ Conference Report for the Erroneous Expenditures
Conference, San Francisco, California,
February 22-24, 1977
- ☐ State Practice for Recovery of Third Party
Resources in the Medicaid Program - March 17, 1977.

Name: _____

First, Last

Position Title

Agency

Address: _____

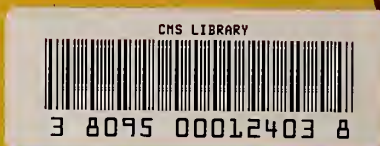
Zip Code

Mail to: Institute for Medicaid Management
Division of Program Monitoring
Medical Services Administration, HCFA, HEW
Room 4628, Mary E. Switzer Building
330 "C" Street, S.W.
Washington, D.C. 20201

DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
Washington, D.C. 20201

Postage and Fees Paid
U.S. DEPARTMENT OF H.E.W.

HEW-392



U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
THE HEALTH CARE FINANCING ADMINISTRATION
Medical Services Administration
(HCFA) 77-24521